



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,831	11/14/2003	Michael D. Stevens	HES 2003-IP-011882U1	3205
29920	7590	06/05/2006	EXAMINER	
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			DANG, HOANG C	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/714,831	Applicant(s) STEVENS ET AL.	
	Examiner Hoang Dang	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/15/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Contrary to applicant's argument, claims 16-18 are not directed to the elected species of figures 2-7. They are directed to the non-elected species of figures 12-15, namely, a nose including holes in an inner surface for receiving pins that securely hold a fluid stopper plug within the nose. Claims 16-18 are therefore withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/16/2005.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-14, 20-35, 45-62 and 68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by LaFleur (US 5,433,270) (see column 8, line 67 through column 9, line 14; and column 9, lines 28-40).

With respect to the embodiment of figures 2-7, either the outer coating (68, 90, 119, 162) alone or the outer coating and the secondary cylindrical core member (66, 88, 118, 158) constitute the "outer foam sleeve" as recited.

Art Unit: 3672

Either wiper portion (74, 106, 132) of embodiment of figures 2-4 and 7 or the nose 160 of Figure 6 of LaFleur constitutes the “nose” as recited.

Contrary to applicant’s argument, the outer coating (68, 90, 119, 162) and/or the secondary cylindrical core member (66,88,118,158) apparently must be “compressible” to some extent, depending on the amount of compressive forces applied thereto.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-14, 20-35, 45-62 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaFleur (US 5,433,270) in view of De Almeida (US 2002/0100590).

As pointed out above, the claims do not distinguish from LaFleur because the foam outer coating and/or secondary cylindrical core member of LaFleur obviously must be “compressible” to some extent. In any event, it would have been obvious to use compressible foam in LaFleur since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use compressible foam in LaFleur since it is known to use compressible foam pigs to provide an effective seal with the internal surface of the pipe they are pumped through as evidenced by De Almeida (see paragraph [0060]). Contrary to applicant’s argument, it is known to use pigs to clean well pipes that convey well fluids from the formation to the surface. These pigs (like that of De Almeida) function very similar to cementing

Art Unit: 3672

plugs (like that of LaFleur) in that they both are pumped through well pipe or string by pressurized fluids and they form a seal with the internal surface of the well pipe or string while being pumped therethrough.

6. Claims 1, 2, 5-13, 20-24, 32-34, 45-48, 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treece (US 6,196,311) or Tessier et al (US 6,951,246) in view of Cato (US 4,069,535) or Lafleur (US 5,433,270) (or/and further in view of De Almeida '590).

Treece or Tessier et al disclose the invention as claimed except for the use of a foam outer sleeve. LaFleur teaches forming a cementing plug body of foam material so that it can be drilled out more effectively by PDC drill bits (see column 1, lines 36-60; column 8, line 67 through column 9, line 14; and column 9, lines 28-40). Cato teaches forming a pipeline pig of a foam type material in order to provide an effective seal between the pig and pipeline and to prevent it from being stuck during its operation (see column 1, lines 9-20 and 59-61). It is noted that pipeline pigs are substantially equivalent to cementing pistons since they both are used for batching and separation of different types of petroleum liquids pumped down a conduit and for cleaning and scraping the walls of the conduit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the outer sleeve of the cementing plugs of Treece or Tessier et al of a foam material in view of the teaching of Cato or LaFleur for the advantages pointed out above.

Contrary to applicant's argument, the foam sleeve of Cato and LaFleur is apparently "compressible" to some extent as pointed out above. In any event, it would have been obvious to use foam that is compressible in view of the teaching of De Almeida as explained above.

Art Unit: 3672

7. Claims 1-3, 5, 8-15, 20-24, 32-35, 45-49, 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman (US 4,836,279) in view of Cato (US 4,069,535) or Lafleur (US 5,433,270) (or/and further in view of De Almeida '590).

Freeman discloses the invention as claimed except for the use of a foam outer sleeve. LaFleur teaches forming a cementing plug body of foam material so that it can be drilled out more effectively by PDC drill bits (see column 1, lines 36-60; column 8, line 67 through column 9, line 14; and column 9, lines 28-40). Cato teaches forming a pipeline pig of a foam type material in order to provide an effective seal between the pig and pipeline and to prevent it from being stuck during its operation (see column 1, lines 9-20 and 59-61). It is noted that pipeline pigs are substantially equivalent to cementing pistons since they both are used for batching and separation of different types of petroleum liquids pumped down a conduit and for cleaning and scraping the walls of the conduit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the outer sleeve of the cementing plugs of Freeman of a foam material in view of the teaching of Cato or LaFleur for the advantages pointed out above.

Contrary to applicant's argument, the foam sleeve of Cato and LaFleur is apparently "compressible" to some extent as pointed out above. In any event, it would have been obvious to use foam that is compressible in view of the teaching of De Almeida as explained above.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 571-272-7028. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/714,831

Page 7

Art Unit: 3672

Hoang Dang
Primary Examiner
Art Unit 3672

A handwritten signature in black ink, consisting of several loops and a long, sweeping tail that curves downwards and to the right.